

Algebra II Quiz 8.3 – 8.5 Review Worksheet

Simplifying the Following:

1. $\frac{-4e^x}{2e^{5x}}$

2. $(2e^{-1})(3e^2)$

3. $\log 1000^2$

4. $8^{\log_8 x}$

5. $\log_9 9$

6. $\log_4 0.25$

7. $\log_{1/3} 27$

8. $\log 1$

9. $\log_3 243^2$

10. Evaluate with a Calculator: $0.2e^5$

11. If $\log_2 5 \approx 2.322$ and $\log_2 7 \approx 2.807$, find:

a. $\log_2 35$

b. $\log_2 \frac{1}{5}$

12. Condense the following expression:
 $3\log_4 14 - 3\log_4 42$

13. Expand the following expression:
 $\log_2 y^2 x$

14. Solve Using the Change of Base
Formula: $\log_7 15$

15. Rewrite the following in exponential
form: $\log_6 \frac{1}{6} = -1$

Solve for x.

16. $\log_x 9 = 2$

17. $\log_9 x = \frac{1}{2}$

18. $\log_a (x+2) - \log_a (x-1) = \log_a 6$

19. $\log_2 2^4 = \log_2 (7x+2)$

Scrambled Answers

$$\log_6 \frac{1}{27}$$

-3

$$6^{-1} = \frac{1}{6}$$

-2.322

10

29.683

2

x

$$\frac{-2}{e^{4x}}$$

1.392

0

6e

-1

3

3

$\frac{8}{5}$

$$\log 2 + 2 \log y + \log x$$

1

6

5.129